

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A digital image processing device comprising:
means for detecting a user selection of a plurality of document blocks that is marked by the user on a scanned document;

extraction means for extracting the plurality of document blocks that are digital image data representing a portion of a scanned document, the scanned document having document images and a background, the plurality of document blocks include document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted plurality of document blocks represents fewer document images than all the document images that are present on the scanned document;

generating means for generating character code data for character image data within the plurality of document blocks;

reconstruction means for reconstructing the plurality of document blocks into a single document block in a specific shape based on the extracted plurality of document blocks; and

layout means for laying out the character code data corresponding to the character code generated by the generating means within the reconstructed document block to create a layout image.

2. (Cancelled)

3. (Currently Amended) A digital image processing device comprising:

means for detecting a user selection of a document block that is marked by the user on a scanned document;

extraction means for extracting the document block that is digital image data representing a portion of a scanned document, the scanned document having document images and a background, the document block includes document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted document block represents fewer document images than all the document images that are present on the scanned document;

generating means for generating character code data for character image data within the document block;

reconstruction means for reconstructing the document block into a single document block in a specific shape based on the extracted document block; and

layout means for laying out the character code data corresponding to the character code generated by the generating means within the reconstructed document block to create a layout image;

wherein the layout image includes a character image of a headline and a character image of body text corresponding to the headline.

4. (Currently Amended) A digital image processing device as claimed in claim 3, further comprising headline character arrangement means for arranging character code data corresponding to the character image of the headline at a specific position within the ~~at least one~~ reconstructed document block.

5. (Currently Amended) A digital image processing device comprising:
means for detecting a user selection of a document block that is marked by the user on a scanned document;

extraction means for extracting the document block that is digital image data representing a portion of a scanned document, the scanned document having document images and a background, the document block includes document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted document block represents fewer document images than all the document images that are present on the scanned document;

generating means for generating character code data for character image data within the document block;

reconstruction means for reconstructing the ~~at least one~~ document block into a single document block in a specific shape based on the extracted document block;
and

layout means for laying out the character code data corresponding to the character code generated by the generating means within the reconstructed document block to create a layout image;

wherein the reconstruction means adjusts a vertical or horizontal dimension of the document block to a length approximating a natural integer multiple of a length of one column of multiple columns formed within the document block.

6. (Previously Presented) A digital image processing device as claimed in claim 1, further comprising file generation means for generating an electronic file storing the character code data laid out by the layout means.

7. (Previously Presented) A digital image processing device as claimed in claim 1, further comprising a printer for printing the character code data laid out by the layout means on a recording substrate.

8. (Currently Amended) A digital image processing device as claimed in claim 1, further comprising a reader for optically reading an image of a document to obtain [[the]] image data to be processed.

9. (Currently Amended) A computer readable medium for storing a program that causes a computer to:

detect a user selection of a plurality of document blocks that is marked by the user on a scanned document;

extract the plurality of document blocks that are digital image data representing a portion of a scanned document, the scanned document having document images and a background, the plurality of document blocks include document image data and background image data, the document image data

represents some of the document images on the scanned document, wherein all the document image data in the extracted plurality of document blocks represents fewer document images than are present in the scanned document;

generate character code data for character image data within the plurality of document blocks;

reconstruct the plurality of document blocks into a single document block in a specific shape based on the plurality of extracted document blocks; and

laying out the generated character code data within the reconstructed document block to create a layout image.

10. (Cancelled)

11. (Currently Amended) A computer readable medium for storing a program that causes a computer to:

detect a user selection of a document block that is marked by the user on a scanned document;

extract the document block that is digital image data representing a portion of a scanned document, the scanned document having document images and a background, the document block includes document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted document block represents fewer document images than are present in the scanned document;

generate character code data for character image data within the document block;

reconstruct the document block into a single document block in a specific shape based on the extracted document block; and

laying out the generated character code data within the ~~at least one~~ reconstructed document block to create a layout image;

wherein the ~~specific~~ layout image includes a character image of a headline and a character image of body text corresponding to the headline.

12. (Currently Amended) The ~~program~~ computer readable medium as claimed in claim 11, wherein ~~[[the]]~~ image processing further comprises a step of arranging the character code data corresponding to the character image of the headline at a specific position within the ~~at least one~~ reconstructed document block.

13. (Currently Amended) A computer readable medium for storing a program that causes a computer to:

detect a user selection of a document block that is marked by the user on a scanned document;

extract the document block that is digital image data representing a portion of a scanned document, the scanned document having document images and a background, the document block includes document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted

document block represents fewer document images than are present in the scanned document;

generate character code data for character image data within the document block;

reconstruct the ~~at least one~~ document block into a single document block in a specific shape based on the extracted document block; and

laying out the generated character code data within the reconstructed document block to create a layout image;

wherein at the step of reconstructing a vertical or horizontal dimension of the document block is adjusted to a length approximating a natural integer multiple of a length of one column of multiple columns formed within the document block.

14. (Currently Amended) The ~~program~~ computer readable medium as claimed in claim 9, wherein ~~[[the]]~~ image processing further comprises a step of generating an electronic file storing the character code data laid out at the step of laying out.

15. (Currently Amended) The ~~program~~ computer readable medium as claimed in claim 9, wherein ~~[[the]]~~ image processing further comprises a step of printing on a recording substrate the character code data laid out at the step of laying out.

16. (Currently Amended) The ~~program~~ computer readable medium as claimed in claim 9, wherein ~~[[the]]~~ image processing further comprises a step of reading an image of a document to obtain ~~[[the]]~~ image data to be processed.

17. (Currently Amended) A digital image processing method comprising the steps of:

~~means for~~ detecting a user selection of a plurality of document blocks that is marked by the user on a scanned document;

extracting the plurality of document blocks that are digital image data representing a portion of a scanned document, the scanned document having document images and a background, the plurality of document blocks includes document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted plurality of document blocks represents fewer document images than are present in the scanned document;

generating character code data for character image data within the plurality of document blocks;

reconstructing the plurality of document blocks into a single document block in a specific shape based on the extracted plurality of document blocks; and

laying out the generated character code data within the reconstructed document block to create a layout image;

wherein ~~[[the]]~~ extraction means extracts a plurality of document blocks, and ~~[[the]]~~ reconstruction means arranges the plurality of extracted document blocks into a single block reconstructed to the specific shape.

18. (Currently Amended) A digital image processing device as claimed in claim 1, wherein the extracted ~~at least one~~ document block is a marked portion of the entire layout image.

19. (Currently Amended) A digital image processing device as claimed in claim 1, wherein the extracted ~~at least one~~ document block is a headline and body text of the entire layout image.

20. (Currently Amended) A digital image processing device as claimed in claim 1, wherein the extracted ~~at least one~~ document block also includes a photographic image area that is extracted and laid out with the character code data.

21. (Currently Amended) The ~~program~~ computer readable medium as claimed in claim 9, wherein the extracted ~~at least one~~ document block is a marked portion of the entire layout image.

22. (Currently Amended) The ~~program~~ computer readable medium as claimed in claim 9, wherein the extracted ~~at least one~~ document block is a headline and body text of the entire layout image.

23. (Currently Amended) The ~~program~~ computer readable medium as claimed in claim 9, wherein the extracted ~~at least one~~ document block also includes

a photographic image area that is extracted and laid out with the character code data.

24. (Currently Amended) A digital image processing method as claimed in claim 17, wherein the extracted ~~at least one~~ document block is a marked portion of the entire layout image.

25. (Currently Amended) A digital image processing method as claimed in claim 17, wherein the extracted ~~at least one~~ document block is a headline and body text of the entire layout image.

26. (Currently Amended) A digital image processing method as claimed in claim 17, wherein the extracted ~~at least one~~ document block also includes a photographic image area that is extracted and laid out with the character code data.

27. (Currently Amended) A digital image processing device comprising:
a detection circuit for detecting a user selection of a plurality of document blocks that is marked by the user on a scanned document;

an extraction circuit adapted to extract the plurality of document blocks that are digital image data representing a portion of a scanned document, the scanned document having document images and a background, the plurality of document blocks includes document image data and background image data, the document image data represents some of the document images on the scanned document,

wherein all the document image data in the extracted plurality of document blocks represents fewer document images than are present in the scanned document;

a generating circuit adapted to generate character code data from character image data within the plurality of document blocks;

a reconstruction circuit adapted to reconstruct the plurality of document blocks into a single document block in a specific shape based on the extracted plurality of document blocks; and

a layout circuit adapted to lay out the character code data within the reconstructed document block to create a layout image.

28. (Currently Amended) A digital image processing device as claimed in claim 1, wherein an area of the reconstructed ~~at least one~~ document block is the same as a total area of the extracted ~~at least one~~ document block.

29. (Currently Amended) The ~~program~~ computer readable medium as claimed in claim 9, wherein an area of the reconstructed ~~at least one~~ document block is the same as a total area of the extracted ~~at least one~~ document block.

30. (Currently Amended) A digital image processing method as claimed in claim 17, wherein an area of the reconstructed ~~at least one~~ document block is the same as a total area of the extracted ~~at least one~~ document block.

31. (Currently Amended) A digital image processing device as claimed in claim 27, wherein an area of the reconstructed ~~at least one~~ document block is the same as a total area of the extracted ~~at least one~~ document block.

32. (Currently Amended) A digital image processing device comprising a circuit for:

detecting a user selection of a plurality of document blocks that is marked by the user on a scanned document;

extracting the plurality of document blocks that are digital image data representing a portion of a scanned document, the plurality of document blocks includes document image data and background image data, the document image data representing some of the document images on the scanned document, wherein all the document image data in the extracted plurality of document blocks represents fewer document images than are present in the scanned document;

generating character code data from character image data within the plurality of document blocks;

reconstructing the plurality of document blocks into a single document block in a specific shape based on the plurality of extracted document blocks; and

laying out the character code data within the reconstructed document block to create a layout image.

33. (Currently Amended) A digital image processing device comprising a circuit for:

detecting a user selection of a plurality of document blocks that is marked by the user on a scanned document;

extracting the plurality of document blocks that are digital image data representing a portion of a scanned document, the scanned document having document images and a background, the plurality of document blocks includes document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the plurality of document blocks represents fewer document images than are present in the scanned document, the plurality of document blocks being identified by a perimeter and containing a specific image to be processed, the perimeter being established by the user beforehand;

generating character code data for character images within the plurality of document blocks;

reconstructing the plurality of document blocks into a single document block in a specific shape based on the plurality of extracted document blocks; and

laying out the character code data within the reconstructed document block to create a layout image.

34. (Previously Presented) The digital image processing device of claim 33, wherein the perimeter is established by the user before the extracting step on an original document using a drawing instrument.

35. (Cancelled)

36. (Cancelled)

37. (Currently Amended) A digital image processing device as claimed in claim 1, wherein the ~~entire~~ layout image includes at least one image in an area outside the ~~at least one~~ document block.

38. (Currently Amended) The ~~program~~ computer readable medium of claim 9, wherein the ~~entire~~ layout image includes at least one image in an area outside the ~~at least one~~ document block.

39. (Currently Amended) A digital image processing method as claimed in claim 17, wherein the ~~entire~~ layout image includes at least one image in an area outside the ~~at least one~~ document block.

40. (Currently Amended) A digital image processing device as claimed in claim 27, wherein the ~~entire~~ layout image includes at least one image in an area outside the ~~at least one~~ document block.

41. (Cancelled)

42. (Previously Presented) A digital image processing device as claimed in claim 1, wherein the character code includes at least font size.

43. (Previously Presented) A computer readable medium as claimed in claim 9, wherein the character code includes at least font size.

44. (Previously Presented) A digital image processing method as claimed in claim 17, wherein the character code includes at least font size.

45. (Previously Presented) A digital image processing device as claimed in claim 27, wherein the character code includes at least font size.

46. (Previously Presented) A digital image processing device as claimed in claim 32, wherein the character code includes at least font size.

47. (Previously Presented) A digital image processing device as claimed in claim 33, wherein the character code includes at least font size.